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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/597,371	06/19/2000	Philip J. Keller	E0889	3850

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EXAMINER

BAROT, BHARAT

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 04/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/597,371

Applicant(s)

KELLER ET AL.

Examiner

Bharat N Barot

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

RESPONSE TO AMENDMENT

1. Claims 1-25 remain for further examination.

The old rejection maintained

2. The rejection is respectfully maintained as set forth in the last Office Action (Paper Number 05) mailed on December 24, 2003.

Claim Rejections - 35 USC § 103(a)

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng (U.S. Patent No. 6,459,705) in view of Shim (U.S. Patent No. 6,088,723).
5. As to claim 1, Cheng teaches a method of communicating within a network interface apparatus (100) (abstract; summary of the invention; and figure 1), comprising: creating special frames in a first part (110) of the apparatus, the special frames including an identifier that distinguishes them from other frames passing through the apparatus (figure 1; and column 3 lines 27-50); sending the special frames from the first part to a second part (104,106,108) of the apparatus through at least a media access controller (102) of the device, the second part including a physical layer device (108) (figure 1; and column 3 line 27 to column 4 line 2); and identifying the special frames

from among frames incoming to the second part, the identifying including examining the incoming frames for the presence of the identifier (figure 1; and column 3 line 38 to column 4 line 14).

However, Cheng does not explicitly teach the step of: extracting physical layer device control information from the special frames at the second part.

Shim explicitly teaches the steps of: sending the special frames from the first part to a second part of the apparatus through at least a media access controller of the device; and extracting physical layer device control information from the special frames at the second part (abstract; figure 1; and column 3 line 54 to column 4 line 50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Shim as stated above with the method of communicating within a network interface apparatus of Cheng because it would have increased the transmission efficiency and internal processing speed to improved the network latency.

6. As to claims 2-3, Cheng teaches that the creating includes creating the special frames with the identifier in the position of a destination address, and wherein the identifying includes examining destination addresses of the incoming frames (column 4 lines 30-39); and the identifier is an otherwise unused IEEE address (column 1 lines 17-23; and column 3 lines 27-37).

7. As to claims 4-5, Shim teaches that the controlling the physical layer device using the control information; and the extracting the control information includes changing the contents of memory registers of the second part (figure 1; and column 4 lines 12-50).

8. As to claims 6-7, Cheng teaches that the first part includes an intermediate driver capable of creating the special frames; and the sending the special frames includes passing the special frames through a device driver (column 3 line 38 to column 4 line 14; and column 7 line 64 to column 8 line 61).

9. As to claim 8, Shim teaches that the creating additional special frames in the second part, the additional special frames including an additional identifier, and passing the additional special frames to the first part (figure 1; and column 3 line 54 to column 4 line 17).

10. As to claims 9-10, Cheng teaches that the identifier and the additional identifier are in the form of destination addresses; and the identifier and the additional identifier are the same (column 3 line 60 to column 4 line 2; column 4 lines 30-39; and column 7 lines 19-29).

Art Unit: 2155

11. As to claim 11, Cheng discloses a network interface apparatus (100) (abstract; summary of the invention; and figure 1) comprising: a network medium interface (110); a media access controller (102) operatively coupled to the network medium interface (figure 1; and column 2 line 66 to column 3 line 26); and a driver arrangement (104,106,108) operatively coupled to the media access controller, the driver arrangement including a device driver operatively configured to communicate with the media access controller (figure 1; and column 3 line 19 to column 4 line 14).

However, Cheng does not explicitly disclose an intermediate driver operatively configured to communicate control information to the network medium interface.

Shim explicitly discloses that the driver arrangement including an intermediate driver operatively configured to communicate control information to the network medium interface (figure 1; and column 4 lines 8-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Shim as stated above with the method of communicating within a network interface apparatus of Cheng because it would have increased the transmission efficiency and internal processing speed to improved the network latency.

12. As to claims 12-20, they are also rejected for the same reasons set forth to rejecting claims 1-4 and 6-10 above, since claims 11-20 are merely an apparatus for the method of operation defined in the method claims 1-4 and 6-10. Additionally, Cheng teaches that the special frames are formatted to pass through the second media access controller as if the special frames were data frames (column 3 line 38 to column 4 line 14; and column 7 line 64 to column 8 line 61).

13. As to claims 21-25, they are also rejected for the same reasons set forth to rejecting claims 1-2, 4, 6-10, and 14 above, since claims 21-25 are merely an apparatus for the method of operation defined in the method claims 1-2, 4, and 6-10. Also rejected for the same reasons set forth to rejecting claim 11 above. Additionally, Cheng discloses that a network interface apparatus comprising: a network medium interface, which includes a physical layer device; and means for controlling the physical layer device by passing control information through the media access controller (figure 1; and column 2 line 66 to column 4 line 14).

Response to Arguments

14. Applicant's arguments with respect to claims 1-25 filed on February 02, 2004 (Paper Number 05) have been fully considered but they are not deemed to be persuasive for the claims 1-25.

15. In the remarks, the applicant argues that:

(A) Argument: Cheng does not disclose a method of communicating within a network interface and Shim does not make up for the deficiencies of Cheng.

Response: Cheng teaches a method of communicating within a network interface apparatus (100) (abstract; summary of the invention; and figure 1), comprising: adding an appropriate preamble and start of frame delimiter to the data and also appending a frame check sequence at the end of a data packet which imply that creating special frames in a first part (110) of the apparatus, the special frames including an identifier that distinguishes them from other frames passing through the apparatus (figure 1; and column 3 lines 27-50); sending the special frames from the first part to a second part (104,106,108) of the apparatus through at least a media access controller (102) of the device, the second part including a physical layer device (108) (figure 1; and column 3 line 27 to column 4 line 2); and performing error check and seating a flag which imply that identifying the special frames from among frames incoming to the second part, the identifying including examining the incoming frames for the presence of the identifier (figure 1; and column 3 line 38 to column 4 line 14). Shim explicitly teaches the steps of: sending the special frames from the first part to a second part of the apparatus through at least a media access controller of the device; and extracting physical layer device control information from the special frames at the second part (abstract; figure 1; and column 3 line 54 to column 4 line 50). Thus, the combination of Cheng and Shim teaches or suggests all the feature of claim 1.

(B) Argument: Change does not disclose a driver arrangement operatively coupled to the media access controller and the driver arrangement including a device driver operatively configured to communicate with the media access controller and Shim does not make up for the deficiencies of Cheng.

Response: Cheng discloses a network interface apparatus (100) (abstract; summary of the invention; and figure 1) comprising: a network medium interface (110); a media access controller (102) operatively coupled to the network medium interface (figure 1; and column 2 line 66 to column 3 line 26); and a driver arrangement (104,106,108) operatively coupled to the media access controller, the driver arrangement including a device driver operatively configured to communicate with the media access controller (figure 1; and column 3 line 19 to column 4 line 14). Shim explicitly discloses that the driver arrangement including an intermediate driver operatively configured to communicate control information to the network medium interface (figure 1; and column 4 lines 8-50). Thus, the combination of Cheng and Shim teaches or suggests all the feature of claim 11.

(C) Argument: Change does not disclose means for controlling the physical layer device by passing control information through the media access controller.

Response: Cheng discloses that a network interface apparatus comprising: a network medium interface, which includes a physical layer device; and means for controlling the physical layer device by passing control information through the media access controller (figure 1; and column 2 line 66 to column 4 line 14).

Art Unit: 2155

16. This action is made final. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Contact Information

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bharat Barot whose telephone number is (703) 305-4092. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam, Hosain, can be reached at (703) 308-6662. A central official fax number is (703) 872-9306.

Any inquiry of general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-3900.

Patent Examiner Bharat Barot

Art Unit 2155

April 06, 2004


BHARAT BAROT
PRIMARY EXAMINER